

**SCOTT FLAKE ROGERS, DPM**

was born in Evanston, Illinois. He received his BA in English Literature and Chemistry from Brigham Young University, in Provo, Utah, and his DPM from the Dr. William M. Scholl College of Podiatric Medicine in Chicago, Illinois. He served his podiatric residency at Loyola University Medical Center, Stritch School of Medicine, in Maywood, Illinois. Following his graduation, Scott, his wife, Cara, daughters, Abbigail and Morgan, and son, Garrett, will be moving to Provo, where Scott will be entering a private podiatric practice. Other than his family, Scott's interests include snow and water skiing, camping, horseback riding and hiking.

**IDIOPATHIC TOE-WALKING**

SCOTT F. ROGERS, DPM EDWIN HARRIS, DPM ROBERT BIELSKI, MD DEIRDRE RYAN, MD

**ABSTRACT**

Idiopathic Toe-Walking (ITW) is an uncommon and often under-reported pediatric disorder of poorly understood etiology, in which children begin ambulating in a bilateral, toe-to-toe pattern, which continues after two-years-of-age. The precise etiology of this gait pattern is still unknown, and may represent several potential etiologies. It now becomes a diagnosis of exclusion after all other potential causes are ruled out. Successful treatment can be unpredictable and untreated cases may result in fixed equines deformity and pain. Understanding the condition has evolved since it was first described by Hall<sup>1</sup> and modified by Griffen.<sup>2</sup> It is possible that the many of the classical articles that discuss ITW include a patient population that is inconsistent with the current definition. Since a large number of cases were encountered at Loyola University Medical Center, a retrospective review was conducted to examine the past medical history, presenting

physical examination, and social history to better determine risk factors, associated conditions, and more precise etiologies through a review of the patients' complete medical record. Patients were identified by a review of diagnostic codes, then further delineated by a review of the medical chart. 104 patients were identified as having ITW, their presenting physical examination, history and treatments were reviewed. Two groups of children with ITW emerged; first, the toe-walkers with a patient reported family history of ITW and second, those without a significant family history of toe-walking. When these two groups were compared, no statistical differences were found between them. Further study will be needed to determine if a family history of ITW has a significant prognostic predictive value.

*For full length article, see page 95 in this journal.*

**REFERENCES**

1. Hall JE, Salter RB, Bhalla K. Congenital Short Tendo Calcaneus. J Bone Joint Surg Br. 1967; 49:695-7.
2. Griffin P, Wheelhouse WW, Shiavi R, Bass W. Habitual Toe-Walkers. J Bone Joint Surg Am. 1977;59:97-101.

**CAROLINE TIGLIO, DPM**

was born in White Plains, New York. She received her BBE and MBE in Biomedical Engineering from Catholic University in Washington, D.C. She received her DPM from Temple University School of Podiatric Medicine in Philadelphia, Pennsylvania, and served her internship at Doctors Hospital in New Boston, Texas, and the Edward Hines, Jr. Hospital, Department of Veterans Affairs, in Hines, Illinois. She presented *First Metatarsophalangeal Joint Arthrodesis: Comparison of Two Fixation Techniques* at the National Post-Graduate Research Symposium, Midwest Podiatry Conference, in April 2006, and made the following poster presentations at the American College of Foot and Ankle Surgeons Annual Meeting: *Tibiocalcaneal Arthrodesis for Idiopathic Carpal Tarsal Osteolysis* and *Open Calcaneal Fracture: Case Report*. Caroline, who enjoys travel, cooking and attending cultural events, will be going into private practice in Wilmington, Delaware following her graduation.

**FIRST METATARSOPHALANGEAL JOINT ARTHRODESIS: COMPARISON OF TWO FIXATION TECHNIQUES**

CAROLINE TIGLIO, DPM FRANCIS J. ROTTIER, DPM RONALD A. SAGE, DPM MARK SARTORI, BS

**ABSTRACT**

The goal of this study is to compare the quantitative strength analysis of two fixation techniques, using a six-hole dynamic compression plate with and without an interfragmentary screw. The standard AO technique for placement of the two systems was utilized. The comparison involved six matched pair fresh frozen cadaveric specimens for direct comparison of the two fixation techniques. Biomechanical testing utilizing computer-integrated

materials tester stressed the fusion site measuring force to failure and stiffness of each specimen. The plate and interfragmentary screw construct showed stronger stiffness and force to failure as compared to the plate without the interfragmentary screw. These results are not statistically significant but trends were noted.

*For full length article, see page 98 in this journal.*

**REFERENCES**

1. Buranosky, D; Taylor, D; Sage R, Sartori, M et al. First Metatarsophalangeal Joint Arthrodesis: Quantitative Mechanical Testing of Six-hole Dorsal Plate versus Crossed Screw Fixation in Cadaveric Specimens. Journal of Foot & Ankle Surgery. July/Aug 2001
2. Coughlin, M; Abdo, RV. Arthrodesis of the first metatarsophalangeal joint with Vitallium plate fixation. Foot Ankle Int 15:18-28,1994.
3. Coughlin, M; Mann, RA. Arthrodesis of the first metatarsophalangeal joint as salvage for the failed Keller procedure. Journal Bone Joint Surg 69A:68-75,1987.
4. Coughlin, M. Arthrodesis of the first metatarsophalangeal joint with mini-fragment plate fixation. Orthopedics, 13:1037-1044, 1990.
5. Curtis, MJ; Myerson, M, et al. Arthrodesis of the first metatarsophalangeal joint: a biomechanical study of internal fixation techniques. Foot Ankle 14:395-399,1993.
6. Johansson, Barrington. Cone arthrodesis of the first metatarsophalangeal joint. Foot and Ankle 4(5):244-248, 1984.
7. Molloy, S; Burkhart, B, et al. Biomechanical comparison of two fixation methods for first metatarsophalangeal joint arthrodesis. Foot & Ankle Int Feb 2003
8. Politi, J; Hayes, J, et al. First Metatarsal-Phalangeal Joint Arthrodesis: a biomechanical assessment of stability. Foot & Ankle Int April 2003
9. Rongstad; Miller; Vander Griend, and Cowin. Biomechanical comparison of four fixation methods of first metatarsophalangeal joint arthrodesis. Foot Ankle Int 15:415-419,1994
10. Sage, R; Lam, A; Taylor, D. Retrospective analysis of first metatarsal phalangeal arthrodesis. Journal of Foot & Ankle Surgery 1997 Nov-Dec: 36(6):425-9.